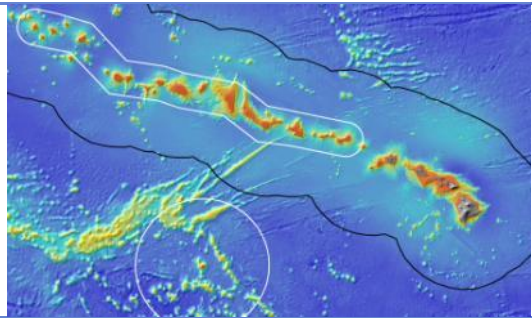


OKEANOS EXPLORER ROV DIVE SUMMARY

Site Name	West Northampton Seamount Ridge		
ROV Lead/Expedition Coordinator	Karl McLetchie Kelley Elliott		
Science Team Leads	Chris Kelley (Biology) Daniel Wagner (Biology)		
General Area Descriptor	Northwestern Hawaiian Islands		
ROV Dive Name	Cruise Season	Leg	Dive Number
	EX1504	2	DIVE06
Equipment Deployed	ROV:	Deep Discoverer	
	Camera Platform:	Seirios	
ROV Measurements	<input checked="" type="checkbox"/> CTD	<input checked="" type="checkbox"/> Depth	<input checked="" type="checkbox"/> Altitude
	<input checked="" type="checkbox"/> Scanning Sonar	<input checked="" type="checkbox"/> USBL Position	<input checked="" type="checkbox"/> Heading
	<input checked="" type="checkbox"/> Pitch	<input checked="" type="checkbox"/> Roll	<input checked="" type="checkbox"/> HD Camera 1
	<input checked="" type="checkbox"/> HD Camera 2	<input checked="" type="checkbox"/> Low Res Cam 1	<input checked="" type="checkbox"/> Low Res Cam 2
	<input checked="" type="checkbox"/> Low Res Cam 3	<input checked="" type="checkbox"/> Low Res Cam 4	<input checked="" type="checkbox"/> Low Res Cam 2
Equipment Malfunctions	There were numerous communications issues between the shore-based and shipboard science team. The conference call was dropped continuously, as was the connection to the chat room. Additionally, the shore-based team reported having issues with the video freezing. Finally, the manipulator arm of the ROV stopped functioning after three samples were secured, preventing the collection of additional specimens.		
ROV Dive Summary (From processed ROV data)	Dive Summary: EX1504L2_DIVE06 ~~~~~		
	In Water at:	2015-08-07T20:12:21.218000 25°, 04.887' N ; 172°, 29.465' W	
	Out Water at:	2015-08-08T03:57:43.968000 25°, 05.375' N ; 172°, 28.946' W	
	Off Bottom at:	2015-08-08T02:52:31.750000 25°, 05.251' N ; 172°, 29.409' W	
	On Bottom at:	2015-08-07T21:18:17.796000 25°, 04.897' N ; 172°, 29.341' W	
	Dive duration:	7:45:22	
	Bottom Time:	5:34:13	
	Max. depth:	1997.0 m	
Special Notes			
Scientists Involved (please provide name / location / affiliation / email)	Abby Lapointe, UH, UH, abbylap@hawaii.edu Allen Andrews, IRC, PIFSC, Allen.Andrews@noaa.gov Amy Baco-Taylor, HBOI ECC, FSU, abacotaylor@fsu.edu Andrea Quattrini, Pasadena, CA, USGS, aquattrini@usgs.gov Bruce Mundy, IRC, NMFS, bruce.mundy@noaa.gov Chris Kelley, EX, UH, ckelley@hawaii.edu Daniel Wagner, EX, PMNM, daniel.wagner@noaa.gov Diva Amon, UH, UH, divaamon@hawaii.edu John R Smith, UH, UH, jrsmith@hawaii.edu Jonathan Tree, UH, UH, jtree@hawaii.edu Les Watling, UH, UH, watling@hawaii.edu Michael Garcia, UH, UH, mogarcia@hawaii.edu Michael Parke, IRC, NMFS, Michael.Parke@noaa.gov Nicole Morgan, HBOI ECC, FSU, nbmorgan11@gmail.com Scott France, ULL, ULL, france@louisiana.edu Steve Haddock, MBARI, MBARI, haddock@mbari.org Tina Molodtsova, SI (Washington, DC), PPSIO, tina@ocean.ru		
Purpose of the Dive			

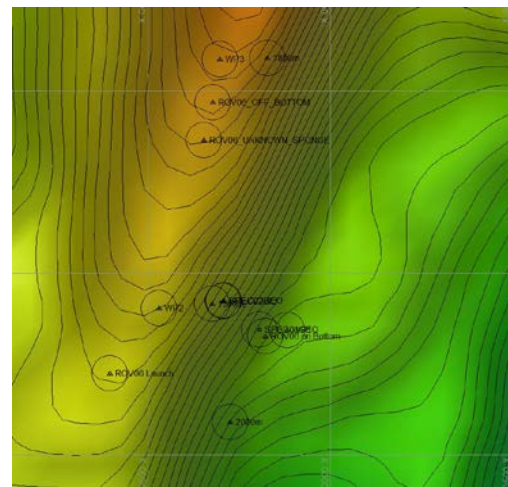
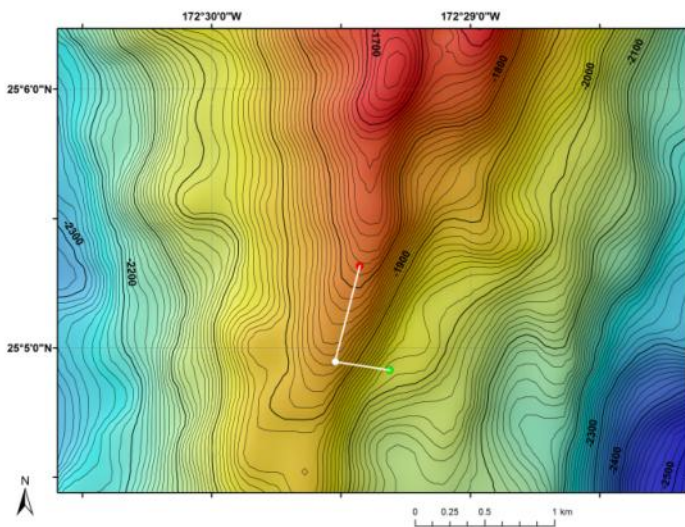
This dive was located on a ridge extending south from West Northampton Seamount. The objective of the dive was to survey a completely unexplored area of the seamount, testing the hypothesis that high density communities of corals and sponges can be found on ridge topography. The target start point of the dive was located along the east slope of the ridge at 1988m. The plan was to move west up the slope until the ROV reached the ridge crest at 1844m. At this point, the ROV would turn towards the north surveying up the ridge crest until a final target depth of approximately 1748m.

Description of the Dive:

The ROV landed on the slope at 1986m. There was a moderate current from the north towards the south. Several animals were present close to the landing spot, including sponges, black corals, crinoids, and fish. As the ROV moved westward up the side of the ridge, the number of animals seen increased and included unbranched bamboo corals, black corals, sponges, chrysogorgiid corals and fish. A Mn-crust basalt sample was collected at 1964m. As the ROV continued to move up the slope, the density of animals continued to increase and included numerous gorgonians, sponges, black corals and sea pens. Just below the ridge crest, a branched Iridogorgia colony and a Mn-crust rock were collected at 1896m. A piece of metal was observed close to that collection site. As the ROV reached the ridge crest, a very high density community was encountered that included many corals and sponges, as well as several crabs, shrimps and fish. This community continued through the remainder of the dive as the ROV surveyed up along the crest. The ROV left the bottom at a depth of 1782m after a total bottom time of 5:34h, having covered a linear distance of 950m.

Overall Map of Dive Area

Actual track of ROV dive



Bathymetry data for the dive site. Planned dive start and end points are shown as green and red dots, respectively.

Hypack screen grab showing waypoints dropped during actual ROV dive.

Representative Photos of the Dive




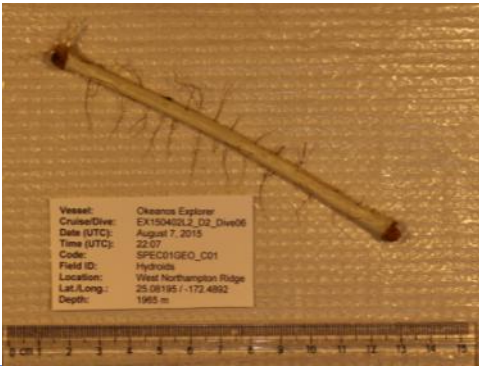
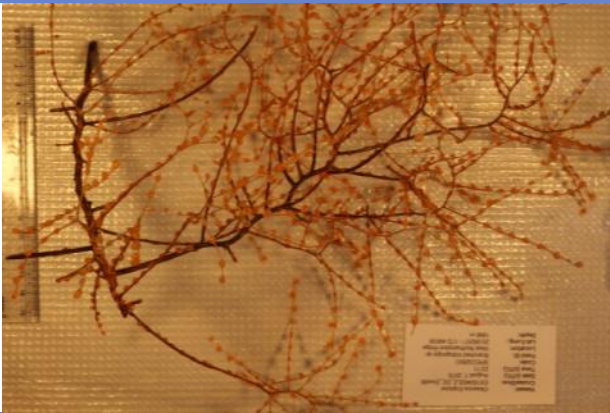

Some of the many unbranched bamboo corals observed during the dive.





One of many large hexactinellid sponges observed during the dive.

Samples Collected

Sample ID	EX1504L2_20150807220707_D2_Dive06_SPEC01GEO
Date (UTC)	2015/08/07

Time (UTC)	22:07:07	
Depth (m)	1965	
Temperature (°C)	1.91273	
Oxygen (mL/L)	3.00205	
Field ID(s)	Mn-crust basalt	
Comments	A piece of bamboo coral covered with hydroids came up with the rock.	
Sample ID	EX1504L2_20150807220707_D2_Dive06_SPEC01GEO_C01	
Date (UTC)	2015/08/07	
Time (UTC)	22:07:07	
Depth (m)	1965	
Temperature (°C)	1.91273	
Oxygen (mL/L)	3.00205	
Field ID(s)	Hydroids	
Comments	Hydroids on piece of bamboo coral that came up with rock sample.	
Sample ID	EX1504L2_20150807231147_D2_Dive06_SPEC02BIO	
Date (UTC)	2015/08/07	
Time (UTC)	23:11:47	
Depth (m)	1896	
Temperature (°C)	1.89789	
Oxygen (mL/L)	2.9612	
Field ID(s)	Branched <i>Iridogorgia</i> sp.	
Comments	The colony from which the sample was taken had a commensal shrimp (<i>Palaemonella</i> sp.), however the shrimp was not collected.	
Sample ID	EX1504L2_20150807232037_D2_Dive06_SPEC03GEO	
Date (UTC)	2015/08/07	
Time (UTC)	23:20:37	
Depth (m)	1896	
Temperature (°C)	1.89926	
Oxygen (mL/L)	3.00932	
Field ID(s)	Mn-crust basalt	
Comments	Sponge and tube were attached to rock specimen.	

Sample ID	EX1504L2_20150807232037_D2_Dive06_ SPEC03GEO_C01	
Date (UTC)	2015/08/07	
Time (UTC)	23:20:37	
Depth (m)	1896	
Temperature (°C)	1.89926	
Oxygen (mL/L)	3.00932	
Field ID(s)	Sponge on rock.	
Comments	Sponge was attached to rock sample.	
Sample ID	EX1504L2_20150807232037_D2_Dive06_ SPEC03GEO_C01	
Date (UTC)	2015/08/07	
Time (UTC)	23:20:37	
Depth (m)	1896	
Temperature (°C)	1.89926	
Oxygen (mL/L)	3.00932	
Field ID(s)	Tube on rock	
Comments	Tube was attached to rock sample.	
Please direct inquiries to:		NOAA Office of Ocean Exploration & Research 1315 East-West Highway (SSMC3 10 th Floor) Silver Spring, MD 20910 (301) 734-1014